

# MOBILE SERIES

AMC-09C



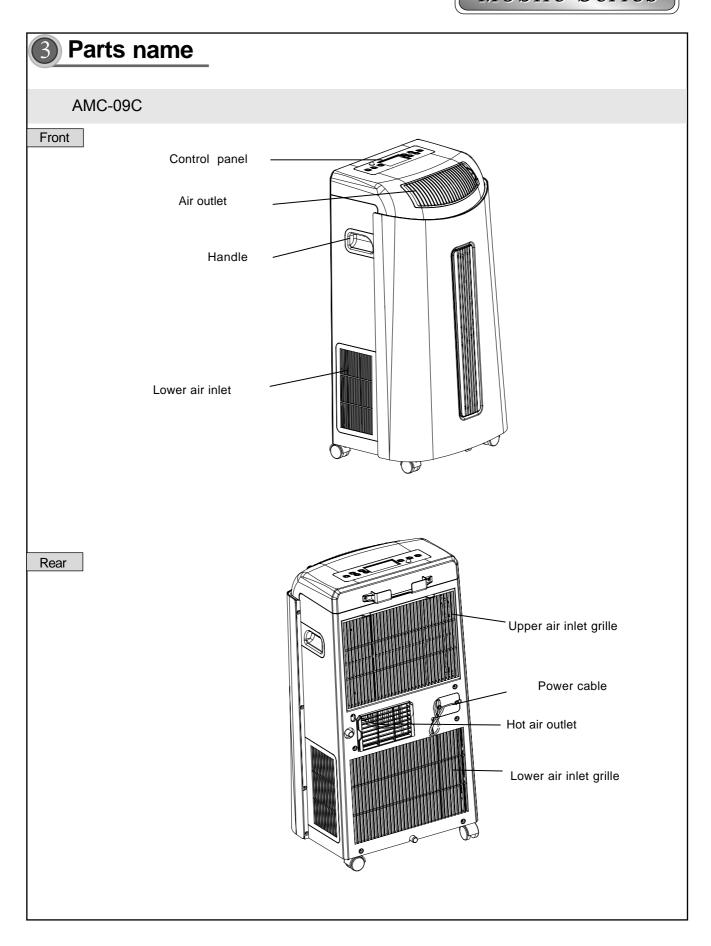
# Mobile Series

# Specification and technical data

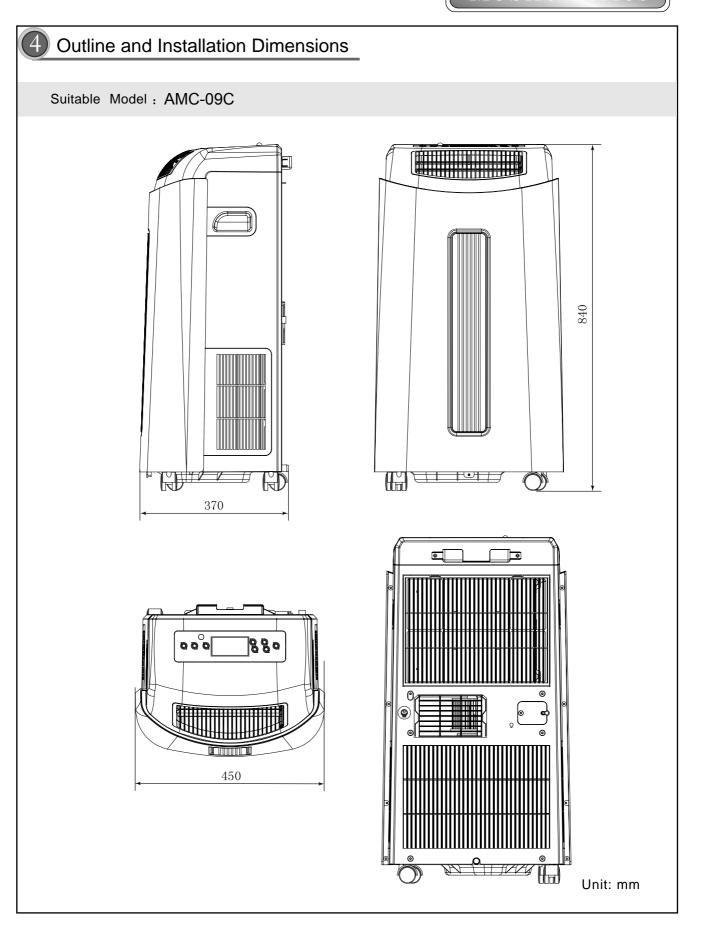
	AMC-09C
n	COOLING
/oltage	220-240 V $\sim$
Rated Frequency 50	
apacity (Btu)	9000
Input (W)	1200
nput (W)	1500
Current (A)	7
v Volume (m³/h)	440/400/350
idifying Volume (I/h)	2.2
EER (W/W)	2.25
Class	D
Fan Type-Piece	Centrifugal fan / 1
Diameter-Length (mm)	Ф174Х85
Evaporator	Aluminum fin-copper tube
Pipe Diameter (mm)	Φ 7
Row-Fin Gap(mm)	3-1.6
Coil length (I) x height (H) x coil width (L)(mm)	310x305x38.1
Swing Motor Model	
Output of Swing Motor(W)	/
Fuse (A)	PCB 3.15A Transformer 1A
Sound Pressure Level dB(A)	55/51/49
	/oltage Frequency apacity (Btu) Input (W) Input (W) Current (A) / Volume (m³/h) idifying Volume (I/h) EER (W/W) Class  Fan Type-Piece Diameter-Length (mm) Evaporator Pipe Diameter (mm) Row-Fin Gap(mm) Coil length (I) x height (H) x coil width (L)(mm) Swing Motor Model Output of Swing Motor(W) Fuse (A)

	Compressor Manufacturer/trademark	GREE
	aCompressor Model	QXC-16uA030
	Compressor Type	Rotary
	L.R.A. (A)	23
	Compressor RLA(A)	4.5
	Compressor Power Input(W)	960
	Overload Protector	B215-145-241H
	Throttling Method	Capillary
Outdoor	Starting Method	Capacitor
side	Working Temp Range (℃)	16℃≼Т≼35℃
side	Condenser	Aluminum fin-copper tube
	Pipe Diameter (mm)	Ф7
	Rows-Fin Gap(mm)	2-1.6
	Coil length(I) x height H) x coil width(L)	650x285x25.4
	Fan Type-Piece	Centrifygal-fan-1
	Fan Diameter (mm)	Ф210х80
	Sound Pressure Level dB (A) (H/M/L)	60
	Sound Power Level dB (A) (H/M/L)	70
	Defrosting Method	/
Fan Moto	Speed (rpm) (H/M/L)	760
Output of Fan Motor (W)		23
Fan Motor RLA(A)		0.4
Fan Moto	r Capacitor (uF)	2
Climate 1	уре	T11
Isolation		
Moisture	Protection	1
Permissi	ble Excessive Operating Pressure for	
the Discharge Side(MPa)		2.7
Permissi	ble Excessive Operating Pressure for	4.0
the Suction Side(MPa)		1.6
Dimension (W/D/H)( mm)		450x370x840
	on of Package(W/D/H)(mm)	690x425x870
Net Weight /Gross Weight (kg)		31/42
Refrigera	nt Charge (kg)	R407C/0.59

The above data are subject to change without notice. Please refer to the nameplate.



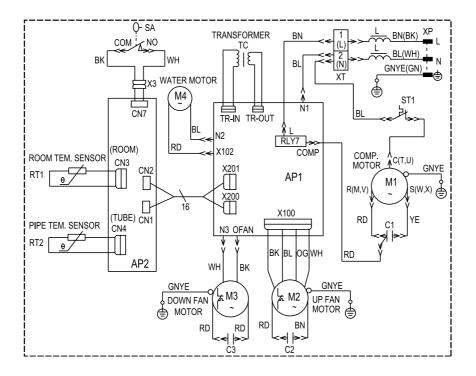
# Mobile Series





# Circuit diagram

## AMC-09C



In case of any change in the Circuit Diagram shown above, please follow the drawing on cabinet.



## **Controller Function Manual and Operating Instructions**

## 6. 1 Controller Function Manual

This function manual is applicable to various mobile air conditioners. The temp. displays in two ways ,that is Centigrade and Fahrenheit, in this manual, the temp. is in Centigrade.( $T^{\circ} = T^{\circ} + 1.8+32$ )

### 6.1.1Temperature Parameters

- ◆ Indoor preset temperature (Tpreset)
- ◆ Indoor ambient temperature (Tamb.)

#### 6.1.2 Basic Functions

After the power is turned on, the separation time of two consecutive starting time of the compressor should not be less than 3min. under any condition. For the first time powering on, there is not 3min. delay for the compressor. Once the compressor is started, it will not stop in 6min as the variation of the indoor temperature.

#### 6.1.2.1 Cooling Mode

#### 6.1.2.1.1 Cooling Conditions and Process

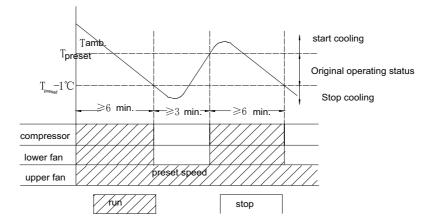
When T amb. ≥ Tpreset, the unit will run under cooling mode, in which case the compressor and lower fan will start and the upper fan will run at preset speed.

When T amb. ≤ Tpreset -1;æ, Stopping cooling,the compressor and the lower fan will be stopped, the upper fan will run at preset speed.

When Tpreset -1  $^{\circ}\mathrm{C}$  <T amb.< Tpreset +1  $^{\circ}\mathrm{C}$  , the unit will maintain its original operating status.

Under this mode, the range of temperature setting is  $16~30^{\circ}$ C .(61~86  $^{\circ}$ F )

LCD display dynamic snow falling and fan turning, in the meantime display the setting fan speed and temp..



#### 6.1.2.1.2Protection

#### **♦** Antifreeze Protection

If it is detected that the system is under antifreeze protection, the compressor and lower fan will be stopped, and the upper fan will run at preset speed. When antifreeze protection is released and the compressor has stopped for 3 minutes, the unit will resume its original operating status.

#### Overcurrent Protection(Low Voltage Protection E5)

When it has detected the system current exceeds the specified value by 1.3A approximatelly, only the fan motor in the main unit runs, 3mins later, if the overcurrent has been released, that the main unit will keep the original running state. If it is 6 times continuously detected overcurrent protection (Compress has continuously work more than 5mins, that the protection time will clear), that the whole unit will stop, the unit is standby, the digital tube displays error code"E5", It is need to turn on the unit by the wireless remote control or to cut off the power first, then re-power on to turn on the unit.

#### ♦ Water Full Protection (H8)

When water full, the water switch will close, the buzzer will beep 8 times, the position shows temp. on LCD will display error code "H8", the unit will stop till the water full be released.

#### 6.1.2.2 Dehumidifying Mode

### 6.1.2.2.1 Dehumidifying Conditions and Process

The upper fan runs at low fan speed, the compressor and the lower fan run continuously,the preset temperature won't display and can not adjust.

One Horse Power Series display dehumidifying sign, low fan speed and dynamic water droping and fan turning.

#### 6.1.2.2.2 Protection

The same as in cooling mode, LCD will display dynamic water full when at water full protection.

#### 6.1.2.3 Fan Mode

The upper fan runs at high,med andlow fan speed, the setting temp. does not display and can not adjust. LCD displays the high, med and low sign according to the upper fan's speed.

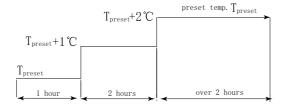
#### 6.1.2.4 Auto Mode

Under this mode, the system will automatically select its run mode (cool, dehumidify, electric heat or fan) with the change of ambient temperature. For protection function, same as under cool, dehumidify and electric heat mode.

#### 6.1.3 Other Control

#### 6.1.3.1 Sleep Function

Setting SLEEP function under COOL or DEHUMIDIFY mode, the preset temperature will automatically rise by 1°C after 1 hour and rise by another 1 after 2 hours. Preset temperature will rise by 2°C in total within 2 hours. After that, the unit will run at this preset temperature.



```
Under fan mode , SLEEP functiomn can be set,preset temperature dosen't change

Under auto mode , there is no SIEEP function
```

#### 6.1.3.2Timer Function

#### 6.1.3.2.1Timer function on the control panel

#### TIMER ON

TIMER ON function can be set when the unit is at off mode. Upon the time as set, the controller will run under preset mode. The interval of time setting is 0.5h and can be set within 0.5-24h in cycle.

#### Timer Off

TIMER OFF function can be set when the unit is at on mode. Upon the time as set , the system will be stopped. The interval of time setting is 0.5h and can be set within 0.5-24h in cycle.

\* Press the TIMER key" " and " " at the same time can cancel the timer function.

#### 6.1.3.2.2Timer function on the remote control

TIMER ON function can be set when the unit is at timer off mode. Upon the time as set , the controller will run under preset mode. The interval of time setting is 0.5h and can be set within 0.5-8h .When the setting time is above 8h,the interval of time setting is 1h and can be set within 0.5-18h .

TIMER OFF function can be set when the unit is at on mode. Upon the time as set , the system will be stopped.

The interval of time setting is 1h and can be set within  $1\sim7h$ .

Cooling only controller can receive the remote signal of heating switch off.

Press ON/OFF key or press TIMER again to cancel timer function.

#### 6.1.3.3 Swing Motor Control

When the system starts to run, the swing motor turn counter-clockwise to open the air outlet.

When the system stopped, the swing motor turn clockwise to close the air outlet.

#### 6.1.3.4 Memory

In the final remote control order(or key order), there isn't timer setting function, that the system will memorize the last order, and will run at the setting method;

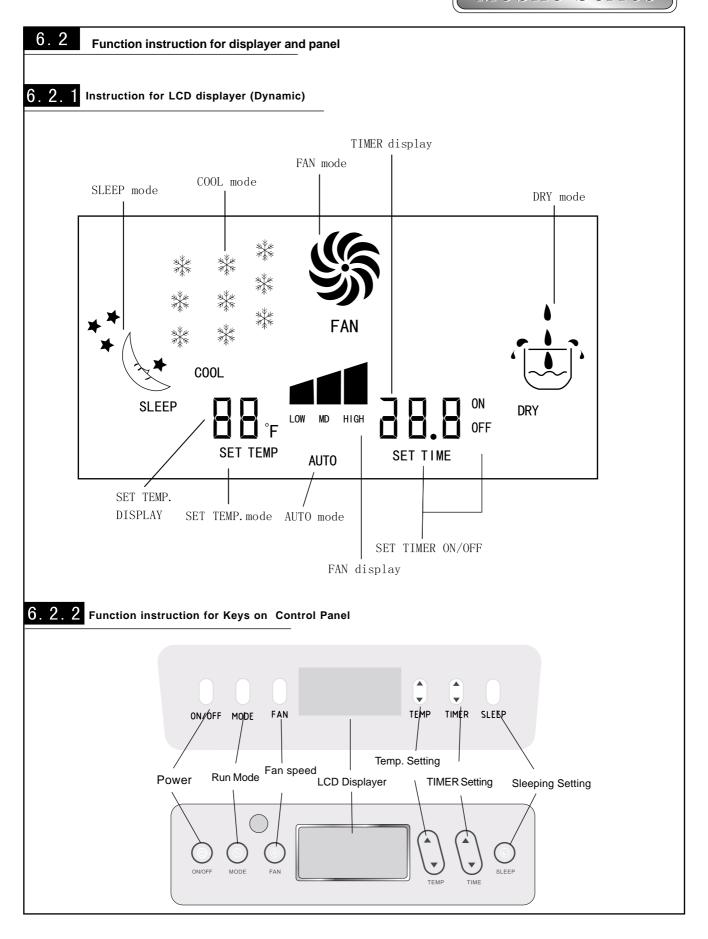
If there is timer setting function in the last remote control order(or key order), and if thetime haven't arrived and the system powered off, after powered on, the system will memorize and run at the timer setting of last order, the time will be recalculated after powered on;

If there is timer setting function at the last remote control order(or key order), but the time has arrived, the system will run at the setting timer on and timer off, if powered off, after timeron and timer off, when powered on, the system will memorize the running state of before system power off, and the timer is not valid.

If there is sleep function setting at the last remote control order(or key order) and the system powered off,afterpowered on, the system will memorize the sleep function.

#### 6.1.3.5 Water Motor Control

The water motor starts or stops together with the compressor.



## Keys on Control Panel

#### 1. ON/OFF

Turn ON or Turn OFF the unit (press "ON/OFF" to turn on the unit, another press to turn off the unit.)

#### 2.MODE

Press this key in turn (AUTO,COOL, DRY and FAN) to choose the RUN mode in need.

#### 3. FAN

In FAN or COOL mode, there are three fan speeds. Press the "FAN" in turn(LOW, MED and HIGT ) to change the fan speed.

#### 4. TEMP.

In COOL mode, control panel will display the setting temp. . Press TEMP."+°C " /"-°C " to increase /decrease the setting temp.

#### 5. TIMER

Press TIMER to set the time of TIMER. When unit runs, press TIMER to set the time turn off the unit, when unit doesn't run(but power on), press TIMER to set the time turn on the unit. the time setting interval is 0.5hr, therange is 0.5-24hrs.

#### 6. SLEEP

When unit runs ,press this key to set sleep mode,another press to quit sleep mode .Under AUTO mode this key doesn't work.

#### Operating instruction (the 3,4 below is for choice)

- 1. After power on, press "ON/OFF" to turn on the unit.
- 2. Press "MODE" to choose the run mode.

In "AUTO" mode, according to the room temp., the microcomputer will select COOL, DRY or FAN automatically.

In order to obtain comfortable effect.

In "COOL" mode, press "TEMP." to set the temp., then press "FAN" to adjust the fan speed.

( Caution: In "COOL" mode, in order to obtain good cooling effect, please pay more attention to:

- 1). If there is the direct sunlight near the window, please use the curtain to shield.
- 2). Do not use other heat sources in the air conditioner room.

In "DRY" mode, the upper fan motor is running at the low speed, it is not adjustable.

( Caution: In "DRY" mode, don't install the exhaust duct.)

In "FAN" mode, press "FAN" to select the fan speed.

- 3. Press "SLEEP" to set the sleep mode.
- 4. Press "TIMER" to set the time to turn on or turn off the unit.

Caut i on. Cut off power supply, move the appliance to a suitable place to pull out the plug and pour out the water in tank. When water is drained out completely, re-insert the plug back into the drainage pipe to avoid dew water leakage. When restarting the appliance,it must be set again.

If the appliance is placed in a position admitting to drain water, you also can connect the drain hose to the drain port to drain water.



## **Disassembly Procedures**

## 7. 1 Disassembly Procedures of Unit AMC-09C

## **Operating Procedures / Photos**

7. 1. 1 Disassemble Front Panel

Screw off the screws fixing the panel(each 3 pieces for left and right), then take off the front panel. (refer to Figure 7-1)

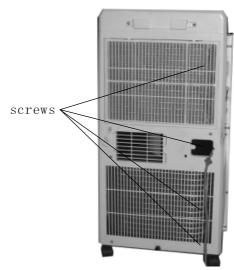


Figure 7-1

## 7. 1. 2 | Disassemble Top Cover

Screw off the four screws which fixed the top cover (each one piece for right and left  $\,$ ,2 pieces for rear ),then pull upwards the  $\,$  cotroller cover .

(refer to Figure 7-2)

Note: The control board was fixing on the top cover so that the cover can not be taken off .

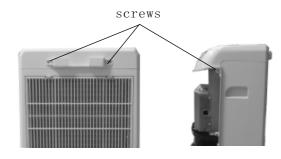
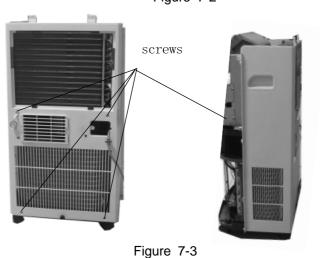


Figure 7-2

## 7. 1. 3 || Disassemble Rear Plate

Screw off the screws which fixed the rear plate, (each 1 piece for left and right ,3 pieces for rear ) then take off the rear plate.

(refer to Figure 7-3)



## 7. 1. 4 |||||||Disassemble Air Oulet Sub-assy

Screw off the 4pcs screws which are used to fix the air outlet part, then take off the side plate.

(refer to Figure 7-4)



Figure7-4

# 7. 1. 5 ||||||| Disassemble the Electric Box Cover

Screw off the 4pcs screws which are used to fix the electric box cover, then take off the electric box cover.

(refer to Figure 7-5)

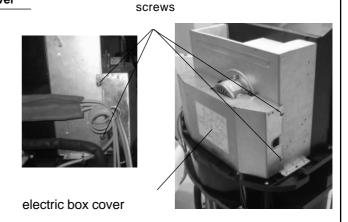
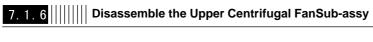


Figure7-5



Screw off the fixing screw(each 5 pcs for left and right), then lift upward to take it off.

(refer to Figure 7-6)

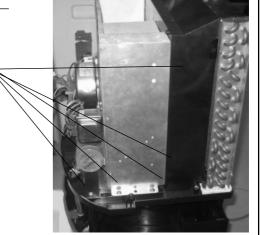


Figure7-6

screws

## 7. 1. 7 Disassemble Lower Centrifugal Fan Sub-assy and Lower Clapboard

Unscrew the screws fixing the support bars of the clapboard, uplift the evaporator slightly,then pull out to take off the lower water tray and centrifugal fan sub-assy.(pay attention to the capillary tube) (refer to Figure 7-7)



Figure 7-7

# 7. 1. 8 ||||||| Disassemble the Compressor

Unscrew the three nuts with washers at the foot of the compressor (caution: only after discharging all freon). Unsolder the soldering points at the suction and the discharge pipes of the compressor, carefully remove the pipes and take out the compressor.

(refer to Figure 7-8)

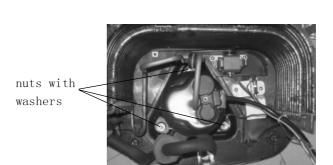


Figure 7-8

# 7. 2 Disassembly Procedures of 14K Unit

## **Operating Procedures / Photos**

## 7. 2. 1 Disassemble Panel Sub -assy

Screw off the 2 screws fixing the panel, press it downwards till the clasp falls and then pull the upper panel upwards.

(refer to Figure 7-9)



Figure 7-9

## 7. 2. 2 || Disassemble Rear Plate

Screw off the screws which fixed the rear plate, (each 4 piece for left and right ,3 pieces for bottom ) then take off the rear plate.

(refer to Figure 7-10)

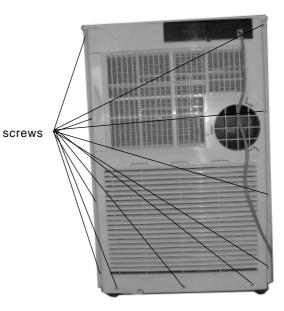


Figure 7-10

# 7. 2. 3 |||||||| Disassemble Top Cover

Screw off the four screws fixing the controller cover (2 pieces for front, each one piece for right and left), then pull upwards the top cover.

Note: The control ler board fixes on the cover so that the cover can not be taken off .

(refer to Figures 7-11, 7-12)

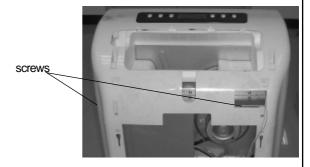
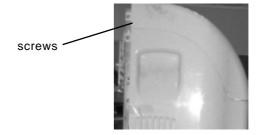


Figure 7-11



# 7. 2. 4 || Disassemble Left, Right Side Plate

Figure 7-12

Screw off the screws fixing the sideplates (each 9pieces for left and right sideplate), then take off the side plates.

(refer to Figure 7-13)

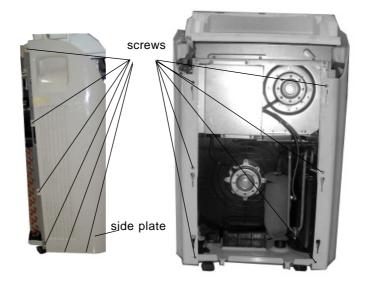


Figure 7-13

# 7. 2. 5 || Disassemble the Air Outlet Frame

Screw off the 2 screws fixing the air outlet frame to take off the air outlet frame .

(refer to Figure 7-14)

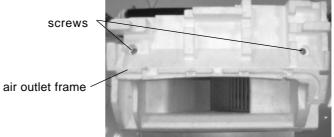


Figure 7-14

## 7. 2. 6 Disassemble the Electric Box Cover

Screw off the 4pcs screws which are used to fix the electric box cover, then take off the electric box cover.

(refer to Figure 7-15)

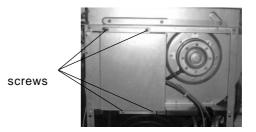


Figure 7-15

## 7. 2. 7 || Disassemble the Upper Clapboard

Remove the plate on the wire, then screw off the screws fixing the upper clapboard to take it off.

( refer to Figure 7-16,7-17)

upper clapboard

screws

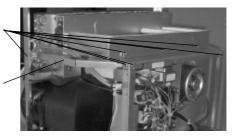


Figure 7-16

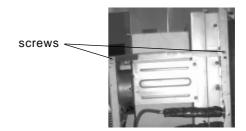


Figure 7-17

# 7. 2. 8 || Disassemble the Electric Box

Take out every wire terminals, and screw off the3pcs screws fixing the electric box, and then take it off.

(refer to Figure 7-18)

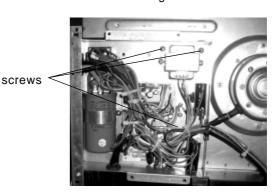


Figure 7-18

## 7. 2. 9 Disassemble the UpperCentrifugal Fan Sub-assy

Screw off the fixing screw, then lift upward to take it off.

(refer to Figure 7-20.7-21)

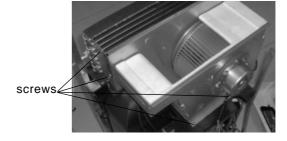
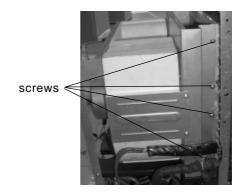


Figure 7-20



## 7. 2. 10 Disassemble Evaporator and Water Tray

Unsolder the in and out pipes(Note: only after discharging all refrigerant), Screw off the screw which are used to fix the water tray, then take off the evaporator and water tray.

(refer to Figure 7-22.7-23)





water tray

Figure 7-22



Figure 7-23

# 7. 2. 11 || Disassemble the Middle Baffle Plate

Screw off the screws on the 4 support bars which are fixed on the middle baffle plate, then pull out the middle baffle plate (pay attention to the capillary) to take off the middle baffle plate.

(refer to Figure 7-24)

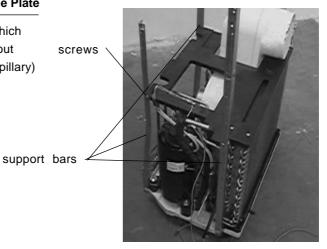


Figure 7-24

## 7. 2. 12 || Disassemble the Compressor

Unscrew the three nuts with washers at the foot of the compressor (caution: only after discharging all freon), carefully removethe pipes and take out the compressor. (refer to Figure 7-25)

nuts with washers

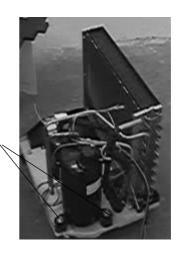
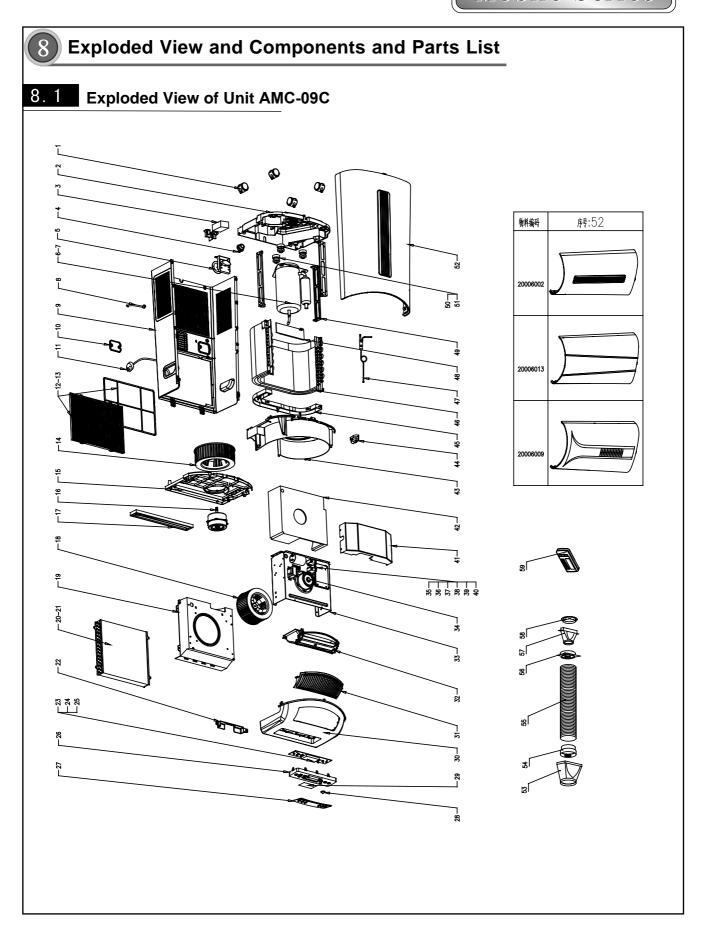


Figure 7-25



## 8. 2 Parts List of AMC-09C

No.	Description	Part No.	Qty
	Description	AMC-09C	Qty
1	castor	24236002	4
2	base assy	22226015	1
3	level switch assy	26156002	1
4	Drainage Stem	76716507	1
5	stir motor assy	15006001	1
6	compressor	001001931	1
7	overload protector	00180064	1
8	Drainage Stem	76716021	1
	Drainage Stem	76716012	1
9	rear case	20056075	1
10	Cable Cross Plate	26116043	1
11	power cord	400220081	1
12	filter	11126052	1
13	filter grill	22416037	1
14	lower centrifugal fan	10316021	1
15	middle insulation plate	20056076	1
16	lower motorYD23B	15016021	1
17	drainage pan assy	12316013	1
18	upper Centrifugal Fan	10316020	1
19	Flow-guide Loop	10376021	1
20	evaporator assy	01006026	1
21	sensor insert	42020063	1
22	Remote Controller Support	24216006	1
23	display Board J78612CJ	30547812	1
24	room senor	39000191	1
25	tube sensor	390000592	1
26	LCD cover	20126033	1
27	Membrane	63066009	1
28	Receiver window	22436032	1
29	Remote Control Widow	22436201	1
30	Top Cover	22246013	1
31	Air Outlet Grill	22416038	1
32	Air Outlet assy	20006001	1
33	Motor Backseat Plate	01226004	1
34	Upper Motor YD40B	15016022	1
35	Transformer 48X23.5G	43110235	1
36	PCB 6861	30036804	1

# Mobile Series

No.	Description	Part No.	Qtv
	Description	AMC-09C	Qty
37	Terminal Board	42011103	1
38	Compressor Capacitor	33000017	1
39	Upper motor capacitor	33010025	1
40	Lower motor capacitor	33010025	1
41	Electric Box Cover	01416002	1
42	Upper Propeller House	12106003	1
43	lower propeller house	22206008	1
44	Pipe-cross Loop	76516010	1
45	Water Tray	20186032	1
46	condenser assy	01106014	1
47	capillaryassy	03006034	1
48	base foam	12316005	1
49	support pole	01796007	3
50	Bolt	702160032	3
51	Rubber grommmet		3
52	Front Panel	20006002	1
	Front Panel a (optional)	20006013	1
	Front Panel b (optional)	20006009	1
53	front plastic pipe end	06646001	1
54	plastic pipe end	06646002	1
55	pipe	05236006	1
56	rear clip	26116010	1
57	middle plastic pipe end	06646003	1
58	plastic cover	22246001	1
59	Remote Controller	30516002	1

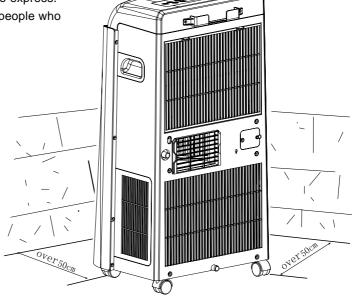
The above data are subject to change withuot notices.



## **Installation Guide**

## 9.1 Notices for Installation

- Do not use the unit in the confined place and keep the well ventilation.
- Keep the unit 1meter away from TV and radio , or it will be effected by the electromagnetic wave.
- Do not use the unit in water or near water, avoiding leakage of electricity.
- Do not use the unit where the sunlight is shining directly onto it so as to avoid surface colour from fading and lower efficiency.
- Do not step on or put things on the top of unit, it will slop and can cause malfuntion.
- Keep the air inlet and outlet far away from obstacles, or it will cause malfuntion.
- Don't apply the cold wind to the body for a long time. It will cause the health problems.
- Don't insert your hands or stick into the air inlet or outlet, especially pay more attention to young children, or it can cause the accident easily.
- Put the unit in a level ground and place the unit no less than 50cm away from a wall or other obstacle.
- Do not use the unit in below locations: 1) Coal gas 2) Fire 3) Oil so as to avoid malfuntion.
- Should take the consideration for the people of following:
  - 2). The ailing people, the people who is hard to express.3). The people who is very tired: drunk or the people who had taken the soporifics.



# 9. 2 Cable Layout

1). Young children, patient.

- The standard working range of the voltage is 220V 6%,50Hz, if the voltage is higher ou lower, theunit will be affected.
- The power supply must be of rated voltage and special line for air-conditioning. The thread section of the lead wire should be large enough.
- The power phugs and the sockets can be supported by the current that is more than 16 A.
- If the power supply cord is damaged, should adopt the special power supply cord to replace.
- The unit must be safety earthed. Earth wire must be connected to the special device of the building in order to provide the good earthing for the air conditioner.

## 9. 3 Accessory Installation

## 1) Drainage Pipe

Note: It must be installed the drainage pipe(including the drainage hole cap and clamp) before operating the unit or it can cause the drainage block and will influence the unit running.

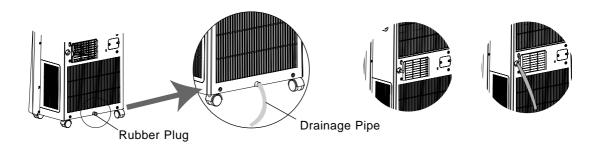
On the rear of the unit, locate the continuous drainage outlet (see diagrams).

For continuous drainage operation push down on the outlet and remove plug.

Connect drainage pipe supplied to continuous drainage outlet.

When continuous drainage operation is not required ensure that the outlet is pushed up fully to prevent further drainage.

### AMC-09C2



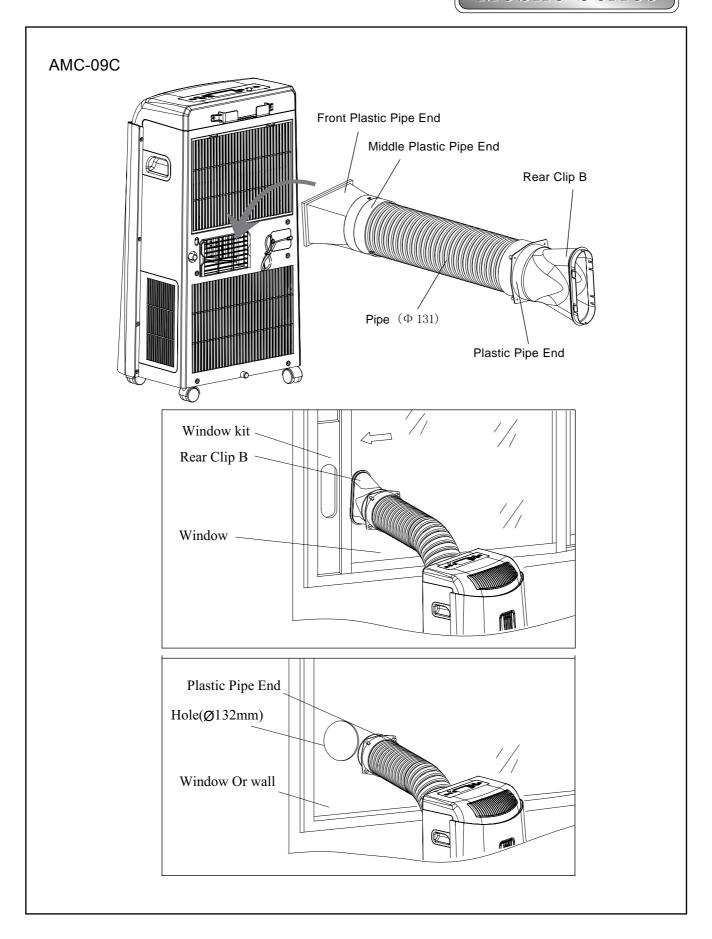
## (2) Exhaust Duct

- 1. Fix the end of the exhaust duct to the exhaust terminal of the unit.
- 2. Put the other end (discharge) to the nearest window.

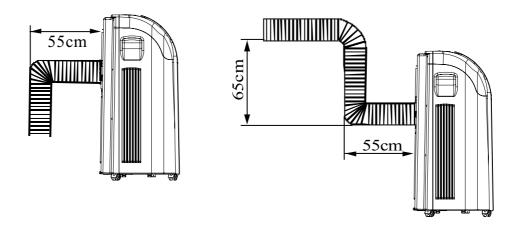
Attention: The length of the air exhaust must be between 500mm-2000mm, the 500mm is suggested.

- 1. In order to correctly installing the air exhaust duct please contact your local dealer for the service.
- 2. When mounting, try to keep the square end of the exhaust duct horizontal.
- 3. Don't add or connect other pipes to it, otherwise it will cause mechanical malfunction.

As follows,introduce separately several methodes of the air exhaust duct installation of AMC-09C and these methods are suitable for both of the two models .According to the situations ,choose the correct installation.



If the pipe are to be bent, please install it by considering following dimension.



Wrong installation is shown in following figure (If the pipe is bent too much, it would easily cause malfunction.)

